

**JOINT BASE CHARLESTON-AIR
INSTALLATION RESTORATION PROGRAM
SOUTH CAROLINA**

STATEMENT OF BASIS FOR NO FURTHER ACTION

AREA OF CONCERN (AOC) Z (IRP SITE ZZ049) – Water Tower 1 Site

[August 2015]

Introduction

Joint Base Charleston-Air (JB CHS-Air) lies approximately 10 miles northwest of the City of Charleston and encompasses approximately 4,000 acres in area with an estimated population of 8,500 comprised of active duty military, Air Force reservists, and civilian personnel. The base population changes periodically as military operations vary from year to year and/or from mission to mission. The facility is under the jurisdiction of the United States Air Force's 628th Air Base Wing, Air Mobility Command. The facility is highly developed with most land used for military operations and housing. JB CHS-Air is surrounded by industrial, commercial, and residential properties that are part of the City of North Charleston, South Carolina.

This Statement of Basis (SoB) pertains to Air Force Installation Restoration Program (IRP) Site ZZ049 – Water Tower 1 (Area of Concern [AOC] Z) which is expected to be added to the Base's Resource Conservation and Recovery Act (RCRA) Part B Permit (SC3570024460) during the next permit modification. The Permit will be issued by the South Carolina Department of Health and Environmental Control (DHEC), a delegated authority by the United States Environmental Protection Agency (USEPA) for RCRA Corrective Actions.

A RCRA Facility Assessment (RFA) and RCRA Facility Investigation (RFI) were required by the DHEC to determine if lead concentrations in site soils exceeded the USEPA Regional Screening Level (RSL) for residential soils. The RFA/RFI requirement was based on the historic use of lead-based paint on the Water Tower structure which was subject to weathering and pressure washing prior to painting.

This SoB explains the rationale for deciding that the decision for No Further Action (NFA) is appropriate for AOC Z (ZZ049) Water Tower 1 Site. This document is also intended to inform the general public of the intended NFA decision for AOC Z. This document provides specific information on how the public can be involved in the NFA decision process. DHEC will not finalize the NFA decision until the public comment period has ended and all information submitted during the public comment period has been reviewed and considered.

This SoB should not be considered the primary source of information for this site. The SoB summarizes information that can be found in greater detail in the following documents:

- Final Technical Evaluation Report (TER) - As part of an Investigation of Oil Water Separators to Determine

Defense Environmental Restoration Account Eligibility, the Water Tower Sites were all investigated in response to previous soil analytical data indicating elevated levels of lead in soil beneath other Base Water Towers, August 2012. During this investigation the Water Tower 1 soils were analyzed for lead.

- Coastal Engineering and Testing Company (CETCO) Soil Sampling Report, Red Horse Joint Base Charleston-Air, CETCO Project #13-04-040, November 2013. CETCO collected soil samples prior to construction activities at Water Tower 1.
- Final AOC Z (ZZ049) – Water Tower 1, AOC AA (ZZ050) – Water Tower 2, and AOC BB (ZZ051) – Water Tower 3 Sites RCRA Facility Assessments and RCRA Facility Investigations Report, April 2015. Water Tower 1 soils were screened with an X-Ray Fluorescence (XRF) analyzer for lead and NFA was recommended based on the results from this investigation. The activities were conducted pursuant to a DHEC-approved work plan (UFP-QAPP).

The previous investigations listed above can be found at JB CHS-Air and the DHEC office located in Columbia, South Carolina (addresses provided in the last section of this document). DHEC encourages the public to review these documents in order to gain a more thorough understanding of the Site and the completed activities that have been conducted.

Proposed Decision

The recommended decision for AOC Z (ZZ049) - Water Tower 1 Site is NFA. The NFA recommendation is based on the findings of the 2015 RFA/RFI field activities, which indicated that residual concentrations of lead in soils were below the USEPA Residential RSL, and do not pose an unacceptable risk to potential current or future receptors. The DHEC Department of Defense Corrective Action Section, Division of Waste Management, Bureau of Land and Waste Management, approved the RFA/RFI Report and concurred with the recommendation for NFA in a letter dated June 2, 2015 (DHEC 2015).

Site Background

Description

Historically, the Water Towers at JB CHS-Air were painted with lead-based exterior paint that was subjected to weathering and pre-painting activities including but not limited to sand blasting, pressure washing, and scraping.

The Water Tower 1 Site is located on North Davis Drive in the northern part of JB CHS-Air. The Water Tower 1 structure itself was demolished sometime between June 2011 and January 2012, during which all associated footings, anchors, piping, and appurtenances were removed and the site was restored with fill soil and native grasses. Currently the former Water Tower 1 Site is paved and is a designated parking area.

Investigations

Technical Evaluation Report (August 2012)

In 2012, three JB CHS-Air Water Tower Sites were investigated in response to previous soil analytical data indicating elevated levels of lead in soils beneath Water Tower 3. All the Water Towers have a similar history of lead-based paint use, so the potential for lead contamination existed at all three sites. One composite soil sample was collected at Water Tower 1, and the analytical result indicated a lead concentration of 26.3 mg/kg, which is below the USEPA Residential RSL of 400 mg/kg.

Pre-Construction Soil Sampling (November 2013)

In 2013, prior to construction activities adjacent to and including the Water Tower 1 site, five soil samples were collected to determine if lead was present in surficial soils. Lead was not detected at concentrations greater than the reporting limit (0.05 mg/kg) in any of the samples collected during this investigation.

RFA and RFI Report (April 2015)

In 2014, an XRF portable analyzer was utilized to conduct real-time soil screening and delineation of residual lead concentrations in native soils adjacent to and below the former Water Tower 1 location. The XRF survey was conducted using a grid pattern centered around the location of the former Water Tower with survey locations approximately every 25 feet on the grid nodes (pending undisturbed soil from paving or buildings). XRF readings were used to guide laboratory soil sample locations to be collected if the XRF

indicated lead contamination in soils were near or above the USEPA Residential RSL of 400 mg/kg. The 47 XRF sample screening results at Water Tower 1 ranged from 0.0 mg/kg (or below the detection limit of the instrument) to 57.2 mg/kg, with a calculated overall site average of 11.37 mg/kg. Since all XRF screening results were below 400 mg/kg, no soil samples were collected for off-site laboratory analysis and no vertical soils were screened.

Site Risk

The RFA/RFI field activities indicated that lead concentrations in soil were all below the USEPA Residential RSL, indicating that no unacceptable human health risks from lead contaminated soil exist at the site.

Remedy Implementation

No prior remedy has been implemented or is warranted at the AOC Z (ZZ049) – Water Tower 1 Site. All site investigations indicated that lead concentrations in soils are below the USEPA Residential RSL.

Statutory Authorities

This document is being issued in compliance with the South Carolina Hazardous Waste Management Regulations (R.61-79) and Federal hazardous waste management requirements. The JB CHS-Air Corrective Action Program is conducted under the authority of Sections 3004(u), 3004(v), 3005(c)(3), 3008(h), 3013, 6001, and 7703 of RCRA (42 U.S.C 6901 et seq.) as amended by the Hazardous and Solid Waste Amendment (HSWA) of 1984 (Pub. L. No. 98-616, 98 Stat. 3221) and the Federal

Facility Compliance Act of 1992 (FFCA) (Pub. L. J02-386, J06 Stat. 1505).

This SoB is part of the corrective action process and is a requirement of the RCRA Corrective Action Permit, referred to as the RCRA Permit, issued to JB CHS-Air by DHEC.

References

AECOM, 2012. Technical Evaluation Report for Investigations of Oil and Water Separators to Determine Defense Environmental Restoration Account Eligibility at Joint Base Charleston-Air, Charleston, South Carolina. August.

Coastal Engineering and Testing, 2013. Soil Sampling Report, Red Horse Joint Base Charleston-Air, CETCO Project #:13-04-040. November.

FPM Remediations, Inc. (FPM), 2015. Final AOC Z (ZZ049) – Water Tower 1, AOC AA (ZZ050) – Water Tower 2, and AOC BB (ZZ051) – Water Tower 3 Sites, RCRA Facility Assessments and RCRA Facility Investigations Report, Joint Base Charleston -Air. April.

DHEC, 2015. Approval, Well Permit Application, Response to DHEC Comments, Errata Pages, and CDs of Final RFA/RFI Report, received May 4. Letter from W. Britton, Jr., June 2, 2015.

USEPA, 2015. USEPA Regional Screening Levels Summary Table. June.
<http://www.epa.gov/region9/superfund/prg/>